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10/658,139

09/09/2003

Ed H. Frank

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EXAMINER

HOANG, HIEU T

ART UNIT

PAPER NUMBER

2452

NOTIFICATION DATE

DELIVERY MODE

09/29/2011

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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|                              |                                      |                                     |  |
|------------------------------|--------------------------------------|-------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/658,139 | <b>Applicant(s)</b><br>FRANK ET AL. |  |
|                              | <b>Examiner</b><br>HIEU HOANG        | <b>Art Unit</b><br>2452             |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on RCE on 8/22/2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on \_\_\_\_; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 5) ☒ Claim(s) 1-33 is/are pending in the application.
- 5a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 6) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 7) ☒ Claim(s) 1-33 is/are rejected.
- 8) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 9) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/6/11, 8/24/10</u> .   | 6) <input type="checkbox"/> Other: ____.                          |

### **DETAILED ACTION**

1. This office action is in response to the amendment filed on 08/22/2011.
2. Claims 1-37 are pending.

### ***Response to Amendment***

3. The 35 U.S.C. 101 rejection of claims 11-20 is maintained for the rationale given in the U.S.C. 101 rejection section below.

### ***Response to Arguments***

4. Applicant's arguments on U.S.C. 102 rejection have been fully considered but they are moot in view of new ground(s) of rejection.

### ***Specification***

5. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: there is no description of "computer readable media" in the specification.

### ***Claim Rejections - 35 USC § 101***

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

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7. Claims 11-20 are rejected under 35 U.S.C. 101 as the claimed invention is directed to non-statutory subject matter. A computer-readable medium, having stored thereon, a computer program, can be read by one skilled in the art as any of a transitory medium such as a signal or a signal wave carrier and is therefore non-statutory for not falling in any one of the four categories: a process, machine, manufacture or composition of matter.

Amendments may be made to narrow the claim to cover only statutory embodiments to avoid a rejection under 35 U.S.C. § 101 by adding the limitation "non-transitory" to the claim. *Cf Animals - Patentability*, 1077 Off. Gaz. Pat. Office 24 (April 21, 1987) (suggesting that applicants add the limitation "non-human" to a claim covering a multicellular organism to avoid a rejection under 35 U.S.C. § 101). Such an amendment would typically not raise the issue of new matter, even when the specification is silent because the broadest reasonable interpretation relies on the ordinary and customary meaning that includes non-transitory embodiments and transitory signals per se. *Subject Matter Eligibility of Computer Readable Media*, 1351 OG 212 (February 23, 2010).

### ***Claim Objections***

8. Claims 11-20, 34-35 are objected to because of the following informalities: claim 11 recites "a computer-readable media" which is a typographical error. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

9. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

10. Claims 33, 35, 37 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. There is no support for “said updating (said initial authentication) is initiated by a different access device selected from any one of said first access point, said second access point and said third access point” in the specification. Correction is required.

11. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

12. Claims 33, 35, 37 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims recites “said updating (said initial authentication) is initiated by a different access device selected from any one of said first access point, said second access point and said third access point”. It is indefinite

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as to how a different access device can be selected from any one of said first access point, said second access point and said third access point, whether the different access device is one of said first access point, said second access point and said third access point, and how it is so, and what is meant by a different access device (not mentioned in the specification). Correction is required.

***Claim Rejections - 35 USC § 102***

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

**14. Claims 1-7, 9-17, 19-27, 29-32, 34, 36 are rejected under 35 U.S.C. 102(e) as being by Christoffel et al. (US 6,587,680, hereafter Christoffel).**

15. For claim 1, Christoffel discloses a method for providing seamless connectivity and communication in a multi-band, multi-protocol network (abstract), the method comprising:

- initially authenticating an access device upon said access device initiating communication with a first access point (fig. 3, first step, fig. 14, [0019], [0029],

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fig. 8, initial authentication, [0112], [0113], [0120], claim 9, security association/credentials of a secure connection for the mobile device via the first network system/wireless access point);

- providing authentication information related to said initial authentication to at least one of a second access point and a third access point (fig. 3, third step, [0018], [0085], [0121], claim 9, providing access formation of the first authentication via the first access point to the second access point); and
- servicing said access device without re-authenticating said access device by one of said second access point and said third access point based on said initial authentication ([0016], fig. 3, last step, claim 9, roaming to different access points and maintaining the secure connection without re-authentication).

16. For claims 11 and 21, the claims are rejected for the same rationale as in claim

1.

17. For claims 2, 12, and 22, Christoffel further discloses storing said initial authentication information (claim 9, [0019], [0029], [0041], [0065], [0071], [0139]).

18. For claims 3, 13, and 23, Christoffel further discloses retrieving said stored initial authentication information by said second access point and said third access point (claim 9, [0085], [0121]).

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19. For claims 4, 14, and 24, Christoffel further discloses said retrieving comprises retrieving said initial authentication information by said second access point when said access device migrates from a first coverage area associated with said first access point to a second coverage area associated with said second access point ([0022], [0076]).

20. For claims 5, 15, and 25, the claims are rejected for the same rationale as in claim 4. A handover to a third access point is same as the handover from the initial access point to the second access point (fig. 6, [0088], [0089]).

21. For claims 6, 16, and 26, Christoffel further discloses said retrieving comprises retrieving said initial authentication information upon said access device initiating communication with said second access point ([0022], [0076], roaming).

22. For claims 7, 17, and 27, the claims are rejected for the same rationale as in claim 6.

23. For claims 8, 18, 28, Christoffel further discloses distributing said initial authentication information to said second access point and said third access point upon said initial authenticating ([0089]).



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24. For claims 9, 19, and 29, Christoffel further discloses transparently transferring said initial authentication information to said second access point during a handoff of said access device from said first access point to said second access point ([0010], [0082]).

25. For claims 10, 20, and 30, the claims are rejected for the same rationale as in claim 9.

26. For claim 31, Christoffel further discloses said at least one processor is an authentication processor, a switch processor, an access point processor and a server processor ([0026], [0113]).

27. For claims 32, 34, 36, Christoffel further discloses said distributing of said initial authentication information to said second access point and said third takes place upon said access device initiating communication or authentication with said first access point ([0089]).

***Claim Rejections - 35 USC § 103***

28. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious

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at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**29. Claims 33, 35, 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Christoffel in view of Ala-Laurila et al. (US 6,587,680, hereafter Laurila).**

30. For claims 33, 35, 37, Christoffel does not disclose updating said initial authentication information within said first access point, said second access point or said third access point, wherein said updating is initiated by a different access device selected from any one of said first access point, said second access point and said third access point. Laurila discloses updating said initial authentication information within said first access point, said second access point or said third access point, wherein said updating is initiated by a different access device selected from any one of said first access point, said second access point and said third access point (fig. 5a, creating new SA at new-AP, fig. 5b, update SA at mobile terminal)

It would have been obvious to one skilled in the art at the time of the invention to apply Laurila's teachings of updating authentication information to the invention of Christoffel. The motivation would be to provide enhanced security to the system of Christoffel.

***Conclusion***

31. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hieu Hoang whose telephone number is 571-270-1253. The examiner can normally be reached on Monday-Thursday, 8 a.m.-5 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thu Nguyen can be reached on 571-272-6967. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/HIEU HOANG/  
Primary Examiner, Art Unit 2452